CPP Beginners class – REDUCED Final Project

This is a reduced version for the final project in this course. You will create a “Dialog System” using C++.

This final project will be 25% of your final grade. **This means that the maximum grade for this course can only be 75 and that is if you have done all the HW assignments (with a perfect grade)**

The Final Project will consist of at least 20 dialogs *(2 must be conditional – meaning more than one button that can lead to a different dialog id)*

This system (module) will be comprised of several components (components can be composed of several classes):

1. Parser
2. Dialog
3. **Parser**: The Parser component will be used to consume different types of data and it will output the data to other components as vectors of strings.
   1. The base abstract class is called IParser
   2. The derived class is called TEXTParser
   3. TEXTParser will read data from text files using the C++ <fstream> header
   4. A text file will look like the following (example) :
      1. Id=2
      2. Title=”Twinsen”
      3. Text=”Hello there,”
      4. Text=”This is my first dialog”
      5. Text=”Goodbye”
      6. xPos=100 (number of spaces)
      7. yPos=50 (number of “\n”)
      8. BG\_Color=1 (link with example on how to set color in cmd is below)
      9. Text\_Color=C (link with example on how to set color in cmd is below)
      10. Button\_Text=”Sounds Good”
      11. Button\_next=3
      12. Button\_Text=”Even better”
      13. Button\_next=4
   5. You will use std::string methods to parse the values in the text files

(guide to set color for cmd <https://www.geeksforgeeks.org/how-to-print-colored-text-in-c/>)

1. **Dialog App:** The Dialog component is the main component.
   1. You will need to create a “Dialog” class that has all the above elements and implement it.
   2. You will create a main.cpp file and there you will create an instance of TEXTParser and Dialog (several instances) and display the dialog to the player using std::cout and std::cin to receive button inputs (the player will have to type in the Button text).

Example on how to parse substrings in CPP <https://cplusplus.com/reference/string/string/substr/>